



Merri-bek
City Council

Planning Pre-application and Pre-FI checklist: Environmental Sustainable Development (Sustainable Design Assessment 'SDA' for 2-9 dwellings)

Introduction

Merri-bek City Council (formerly Moreland Council) is committed to achieving best practice outcomes in Environmentally Sustainable Development (ESD), from design through to construction and operation.

This checklist for 2-9 dwellings is a guide on what you need to consider at the pre-application and pre-FI stages. Considering ESD early in your application will reduce confusion, costs, and changes later if approval is granted.

There may be other ESD matters which are not mentioned in this list, that will need to be addressed at later stages of the application process, i.e., plant types, taps to balconies, etc.

Clause 15.01-2L-05 'Environmentally sustainable development' in the Merri-bek (Moreland) Planning Scheme mandates ESD for most residential developments of more than one dwelling on a lot and non-residential developments of 100sqm+.

A Sustainable Design Assessment (SDA) must be submitted for 2 to 9 dwellings. Most applications provide a Built Environment Sustainability Scorecard (BESS) as part of their SDA. This is available free online at <http://bess.net.au>

To see the Planning Scheme mandatory requirements, visit [15.01 BUILT ENVIRONMENT Moreland Planning Scheme - Ordinance](#)

SDA and BESS

- Publish the BESS report.
- Ensure all ESD commitments are clearly drawn, labelled, and listed on the plans.
- Provide an ESD table on the plans for ESD items that can't be drawn.

Find out more

Guidance Plans

Example SDA and accompanying plans to assist you to prepare your own documentation:

[Moreland Guidance SDA \(PDF 9Mb\)](#)

[Moreland Guidance Plans \(PDF 3Mb\)](#)

BESS

<https://bess.net.au/>

Zero Carbon Planning

Merri-bek's resolution to future improvements in ESD outcomes

<https://morelandzerocarbon.org.au/about/zero-carbon-planning/>

Merri-bek Language Link

Italiano	Italian	9280 1911	Türkçe	Turkish	9280 1914	普通话	Chinese (Simplified)	9280 0750
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Energy

- Avoid the use of gas. Install electric heat pump hot water systems, induction cooktops and reverse cycle heating and cooling systems.
- Provide preliminary NatHERS ratings for all thermally unique dwellings.
- Achieve a minimum NatHERS 7 star rating to meet the requirements of NCC 2022.
- Annotate 'DG' (Double Glazed) to all habitable room windows and glazed doors to each individual unit on floor plans and elevations.
- Use insulated window and door frames in a light to medium colour.
- Avoid ceiling inserted downlights and minimise the use of skylights and roof windows to improve the NatHERS rating.
- Zone heated and cooled rooms with doors and avoid open stairwells to reduce energy use.
- Install washing lines to the private open space of each dwelling.

Solar Panels

Merri-bek is targeting a net-zero community and encouraging everyone to take advantage of the benefits of going all-electric. Refer to - https://zerocarbonmerri-bek.org.au/wp-content/uploads/2021/10/MZCDG_SOLAR_PV_SYSTEMS-1.pdf

It is recommended that you provide a solar PV system to each dwelling as follows:

- Townhouse / house – minimum 3kW solar PV system to each 1 and 2 bed dwelling, 4kW for 3 beds and 5kW for 4 beds.

IEQ

IEQ Daylight access

- Maximise access to north sun for habitable rooms. Consider floor plan layouts and the location of windows and doors.
- Consider the impact of excessive glazing to the west. Balance daylight requirements and heat gain in summer (install external operable blinds).
- Install operable skylights (not facing west) or daylight tubes to rooms where a window cannot be installed or where daylight is inadequate.
- Provide daylight access to all garages via windows in the garage doors, polycarbonate garage doors, a skylight, window, or a glazed door to the POS.
- Maximise the Visible Light Transmittance (VLT) of glazing. Clear glazing is preferred.

IEQ Shading

- Provide shading and weather protection to all glazed doors to a minimum depth of 600mm via eaves, an awning, or a solid roof.
- Install fixed, external, horizontal shading to all north facing windows and glazed doors to habitable rooms. Use the 25% shading formula from the Energy Smart Housing Manual, Sustainability Victoria p.41. Extend shading to the sides by the same depth. Eaves are acceptable if they meet the 25% formula. [Energy Smart Housing Manual | Sustainability Victoria](#)
- Provide external operable sun shading devices to all east and west, north-east, and north-west facing habitable room windows and glazed doors.
- For all shading provide a dimensioned section diagram or photograph. Clearly draw and label where the shading will be located on the plans and elevations.
- Metal roller shutters cannot be used on glazing that face the street or common areas.
- Ensure windows that have external adjustable shading can open when using the blind.

IEQ Ventilation

- Draw how all windows open on elevation plans.
- Maximise operable windows including to bathrooms, studies, hallways, and stairwells.
- Provide a minimum of 2 operable windows or doors for all rooms for passive ventilation.
- Maximise window opening types that provide greater ventilation such as casement followed by double-hung and sliding (consider shading).
- Avoid awning windows where possible as they allow for the lowest level of ventilation.
- Avoid awning windows with a winder close to the floor for people with limited mobility. Or split the window with a fixed section at the bottom and make the top half operable.

Water

- Use WELS (Water Efficiency Labelling and Standards) rated fixtures within one star of the best available. <http://www.waterrating.gov.au/>
- Commit to minimum WELS ratings as follows:

Showers: 3 WELS stars
Toilets (WC): 4 WELS stars
Taps: 5/6 WELS stars

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Stormwater

- ❑ Provide a STORM Report (available free at <https://storm.melbournewater.com.au/Default.aspx>)
- ❑ Achieve a minimum 80% rainwater tank reliability in STORM.
- ❑ Provide a Water Sensitive Urban Design (WSUD) plan that shows where all stormwater will drain, the direction of flow, downpipes, the location of the Legal Point of Discharge (LPOD) and how the impervious surfaces will be treated.
- ❑ Draw and label the location of all WSUD features on the ground and landscape plans.
- ❑ Install a water tank to each dwelling connected to all toilets from the maximum area of roof.
- ❑ Do not use WSUD proprietary devices (e.g., Enviss pits) as they are not accepted in Merri-bek.
- ❑ Planter box raingardens cannot be in the SPOS or on boundaries. They must be 300mm away from building footings.
- ❑ Charged pipes under slabs are not allowed.
- ❑ Provide dimensions, plant types, maintenance schedules, technical cross section diagrams, etc. for the water tanks, permeable paving, and planter box raingardens. Use the guidance on the Merri-bek webpage at [Environmentally Sustainable Design \(merri-bek.vic.gov.au\)](https://www.merri-bek.vic.gov.au/Environmentally-Sustainable-Design)

Transport

Electric vehicle infrastructure

Merri-bek is targeting a net zero community and recommends the following:

- Infrastructure and cabling (with or without the charger unit) to each garage or carport that can support Level 2 (Mode 3) 32 Amp EV car charging.
- Load management systems that ensure that:
- EV charging occurs outside of peak electricity demand hours; and
- The EV infrastructure does not adversely impact the site's maximum demand.

Refer to: https://zerocarbonmerri-bek.org.au/wp-content/uploads/2021/10/MZCDG_EV_INFRASTRUCTURE.pdf

Bike parking

- ❑ Provide a secure, undercover, and weatherproof bike park for each dwelling. Garages and carports are acceptable if there are no obstructions or other uses that limit access for riders. Parked bikes cannot block bin access from the private open space to the collection point. Over bonnet bike racks are not acceptable.

Waste

- ❑ Victoria is moving to a 4-bin system so shared bins or a mix of shared and individual bins (generally recycling in the POS) are required for developments of 4 plus dwellings.
- ❑ 1 to 3 dwellings can each have 4 individual bins.
- ❑ 2023 Council collections – General rubbish 80L collected weekly, mixed recycling 240L collected fortnightly, FOGO 120L collected weekly, glass recycling 120L collected every 4 weeks. *
- ❑ 4 dwellings individual 4x240L recycling, shared 2x240L rubbish, 2x120L FOGO, 3x120L glass. *
- ❑ 5 dwellings - individual 5x240L recycling, shared 2x240L rubbish, 2x120L FOGO, 3x120L glass. *
- ❑ 6 dwellings - individual 6x240L recycling, shared 2x240L rubbish, 2x120L FOGO, 4x120L glass. *
- ❑ The correct size and location of all bins must be drawn on the plans with dimensions.
- ❑ The bins must be easily accessible by people of all mobilities, easy to move to the collection point and shared bins screened appropriately.
- ❑ Provide a plan of the collection location with a minimum of 300mm between rubbish, FOGO, and glass bins (collected on the same day every 4 weeks) to demonstrate they can fit in a single line without blocking driveways.

Urban Ecology

- ❑ Maximise vegetation to entrances, driveways, walls, between garages, etc., and maintain existing trees and plants.

Materials

- ❑ Minimise the level of dark materials to limit the Urban Heat Island Effect (UHIE). Roofs must have a Solar Absorptance (SA) of <0.60. Paint colours for walls and driveways must have a Solar Reflective Index (SRI) higher than 0.40.
- ❑ Avoid an extensive use of render. Use durable materials such as brick or real brick cladding, concrete, fibre cement, timber/ timber composite panels, steel, and aluminium.
- ❑ Use recycled, sustainable and durable materials. Refer to Global Green Tag and GECA. [Global GreenTag. The world's best eco products. Certified. Sustainability & Environmental Certification Program - GECA](https://www.globalgreentag.com/)
- ❑ Use recycled timber or third-party certified timber. [Home | Forest Stewardship Council \(fsc.org\)](https://www.fsc.org/), [PEFC - Programme for the Endorsement of Forest Certification](https://www.pefc.org/)

*ESD expectations are subject to change - Updated 15/05/2023

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